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Head and Neck Tuberculosis: 6-Year Retrospective Study☆

Carlos Miguel Chiesa Estomba,* Frank Alberto Betances Reinoso, Teresa Rivera Schmitz, Carla Cristina Ossa Echeverri, María Jesús González Cortés, Carmelo Santidrian Hidalgo

Servicio de ORL, Complejo Hospitalario Universitario de Vigo, Vigo, Spain

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KEYWORDS
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Head;
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Abstract
Introduction: Pulmonary involvement exists in 80% of cases of infection with *Mycobacterium tuberculosis*; however, in up to 20% of cases there may be extra-pulmonary involvement. In the ENT area, the most common site is cervical lymphadenitis, affecting approximately 95% of cases.
Materials and methods: This was a retrospective study of patients attending an ENT department in a tertiary hospital for head and neck symptoms that were diagnosed with tuberculosis (TB), between December 2007 and December 2013.
Results: The study included 73 patients, 41 (56.2%) males and 32 (43.8%) females (M/F ratio=1.28), with a mean age of 39.4 years (±26.5 years; Min 1, Max 88). There were 53 (72.6%) cases of cervical lymphadenopathy, 11 (15%) of laryngeal tuberculosis 3 (4.1%) of hypopharyngeal tuberculosis, and six cases in other locations. Of the total, 14 (19.2%) patients were HIV positive and 10 (13.7%) had a history of contact with relatives who had suffered pulmonary tuberculosis. PCR was performed in 51 (69.8%) cases to confirm being positive, of which 47 (92.1%) cases were.
Conclusion: The similarity of tuberculosis to diseases of poor prognosis and the difficulty of its diagnosis make considering tuberculosis necessary when exploring patients with ulcerative or granulomatous ENT lesions. Analysing our results, the incidence of TB according to its ENT area location is similar to that reported in the literature. It is important to make special mention of the use of PCR in our study and the benefits that its implementation means for diagnosis.

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* Corresponding author.
E-mail address: chiesaestomba86@gmail.com (C.M. Chiesa Estomba).

PALABRAS CLAVE
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Cabeza;
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Garganta

Tuberculosis de cabeza y cuello: estudio retrospectivo de 6 años

Resumen
Introducción: En el 80% de los casos de infección por *Mycobacterium tuberculosis* existe afectación pulmonar, sin embargo hasta en un 20% de casos puede haber compromiso extrapulmonar. En el área otorrinolaringológica la localización más frecuente es la linfadenitis cervical, que afecta aproximadamente al 95% de los casos.
Materiales y métodos: Estudio retrospectivo en pacientes que acudieron a consulta de ORL en un hospital terciario por sintomatología en cabeza y cuello y que fueron diagnosticados de tuberculosis, entre diciembre del año 2007 y diciembre del año 2013.
Resultados: Un total de 73 pacientes fueron incluidos, 41 (56,2%) hombres y 32 (43,8%) mujeres (ratio H/M = 1,28), con una edad promedio de 39,4 años (±26,5 años; mín: 1/máx 88). Un total de 53 (72,6%) casos correspondieron a linfadenopatía cervical, 11 (15%) a tuberculosis laríngea, 3 (4,1%) a tuberculosis hipofaríngea, y los restantes 6 en otras localizaciones. Del total, 14 (19,2%) pacientes eran VIH positivo y 10 (13,7%) tenían antecedentes de contacto con familiares que habían sufrido tuberculosis pulmonar. En 51 (69,8%) de los casos se realizó una PCR como medida de confirmación, siendo positiva en 47 de estos (92,1%).
Conclusión: La similitud de la tuberculosis con enfermedades de mal pronóstico y la dificultad que entraña su diagnóstico hacen necesario tener en cuenta la tuberculosis a la hora de explorar a pacientes con lesiones granulomatosas o ulcerativas del área ORL. Al analizar nuestros resultados, la incidencia de tuberculosis según su localización en el área ORL es similar a la reportada en la literatura. Es importante hacer mención especial del uso de la PCR en nuestro estudio y las ventajas que su aplicación significa para el diagnóstico.

Introduction

Tuberculosis (TB) is one of the oldest infections known to humanity. Even today, it is still one of the main causes of death from infection in adults.[1] In 2011, the World Health Organisation estimated an incidence of 8.3–9 million cases at global level.[2] Furthermore, 1 of every 3 individuals in the world is thought to be infected with *Mycobacterium tuberculosis*[1,3] (*M. tuberculosis*) or runs the risk of developing the disease.[3]

There is extra-pulmonary infection in 80% of the cases of infection by *M. tuberculosis*, but up to 20% of cases can have extra-pulmonary compromise.[4] In the ear, nose, and throat (ENT) area specifically, the most frequent location is the cervical lymph nodes, involving approximately 95% of the cases. The remaining locations (such as larynx, ear, nostrils, pharynx, tonsils, mastoids, salivary glands or cavum) each represent less than 1% of all the TB cases.[5]

Over the last years, the increase in the cases of human immunodeficiency virus (HIV) has been accompanied by an increase in extrapulmonary manifestations of TB at the level of the head and neck. Up to 25% of the cases of positive HIV in this area of the body occur without pulmonary involvement or wasting syndrome.[2] Yang et al.[6] reported nearly 50% of cases that presented co-infection with extrapulmonary HIV+TB, and this percentage could increase up to 80% in patients with severe immunosuppression. Other factors to consider are the great migrations, the appearance of resistant strains, the increase in poverty and the greater number of patients immunocompromised by other diseases or treatments, which have also accompanied this increase in incidence in the developed countries.

That is why the objective of this study was to describe the cases of head and neck TB referred to the Ear, Nose, and Throat (ENT) Service in a tertiary hospital in the community of Galicia (Spain) over a 6-year period, and to compare these results with those published in the international literature.

Materials and Methods

This was a retrospective analysis of the patients that came to the ENT consultation at our tertiary hospital in the autonomous community of Galicia (Spain) for head and neck symptoms and were diagnosed with TB. The period covered patients seen from December 2007 through December 2013. We identified the cases thanks to a computer search of the registers in our service using the International Classification of Diseases (ICD)-9 and ICD-10 codes. The Ethics Committee at our centre approved this study.

The revision of the clinical histories provided the demographic data (age, nationality, and sex), clinical information, signs, and symptoms at the time of consultation, way disease presented, information on diagnostic tests, *etc*.

Statistical analysis was carried out using the program SPSS for Windows, version 20.0 (SPSS, Inc., IL, USA). Quantitative study variables were expressed as mean±standard deviation and the results were expressed as total plus percentage.